

WHAT IS CLAIMED IS:

1. A method of manufacturing a lithography mask blank on a transparent substrate, comprising the steps of:
depositing, on the transparent substrate, at least one light absorption film which has a property of absorbing a laser of a predetermined wavelength;
and
irradiating a laser beam of the predetermined wavelength onto the light absorption film to heat the light absorption film and to thereby alleviate its internal stress.
2. A method as claimed in claim 1, wherein the mask blank is a phase shift mask blank while the light absorption film is formed by a translucent film which serves as a phase shift film of the phase shift mask blank so as to attenuate exposure light of predetermined intensity.
3. A method as claimed in claim 1, wherein the light absorption film is an opaque film.
4. A method as claimed in claim 1, wherein the laser beam is irradiated onto the mask blank so that the transparent substrate with the light absorption film has flatness not greater than 0.5 micron meter.
5. A lithography mask blank manufactured by the method claimed in claim 1.
6. A lithography mask manufactured by the use of the mask blank claimed in claim 5.